



Technology Transfer Office

***Partnering with Industry
to Commercialize Clean
Energy Technologies***

Operated for the U.S. Department of Energy by Midwest Research Institute • Battelle



The Problem

Technologies to Products to Markets



**Technology
Creation**



Quads,
Security,
Jobs
Sustainable
Development



Clean Energy &
Environmental
Quality

**Market
Successes**

After the technology is created... the real challenges begin.

The Problem

Technologies to Products to Markets



**Technology
Creation**



Quads,
Security,
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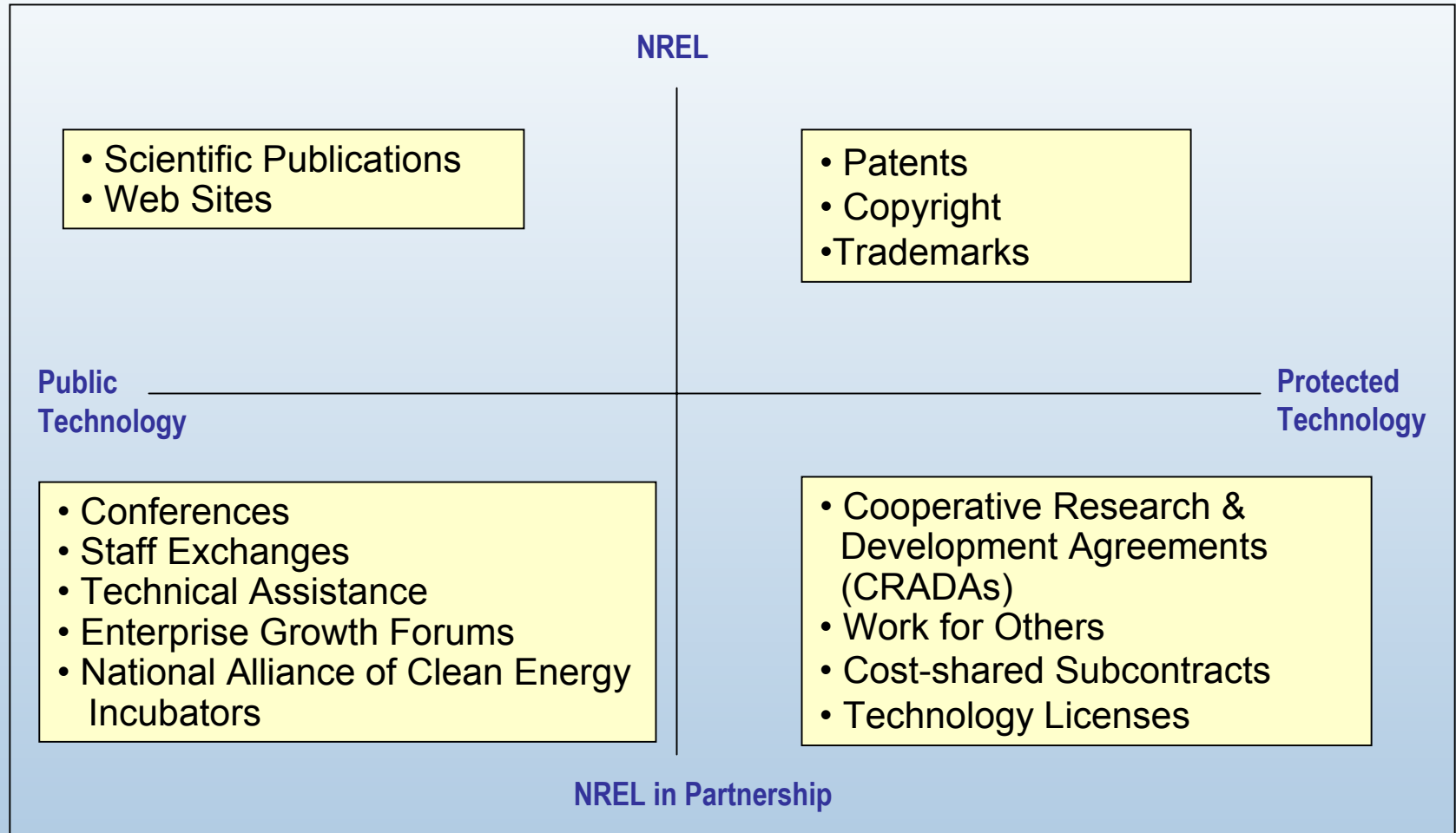


Clean Energy &
Environmental
Quality

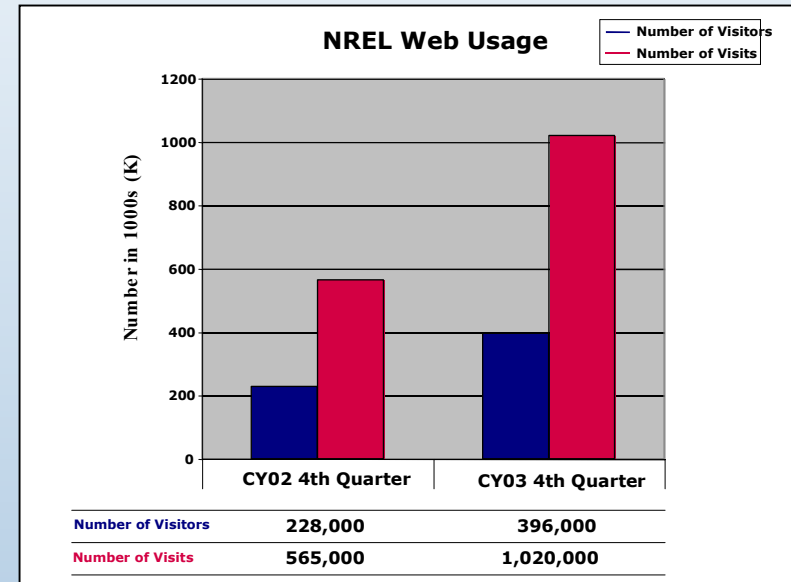
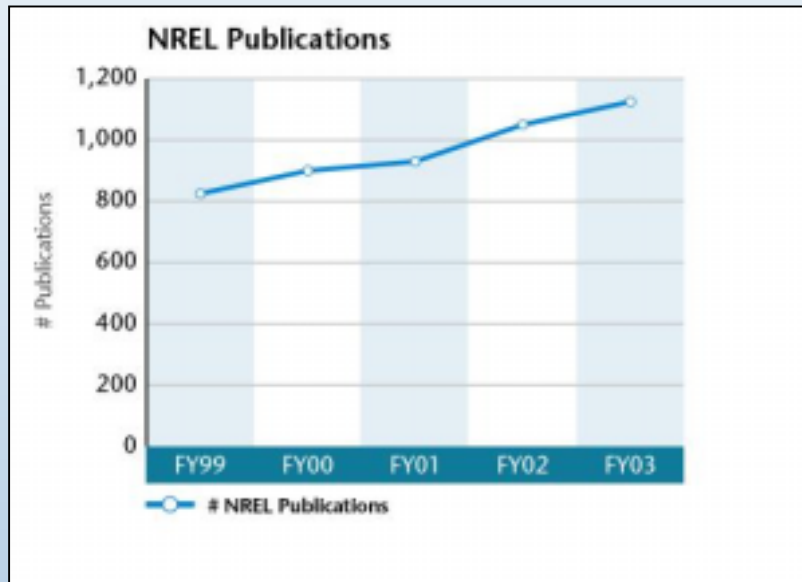
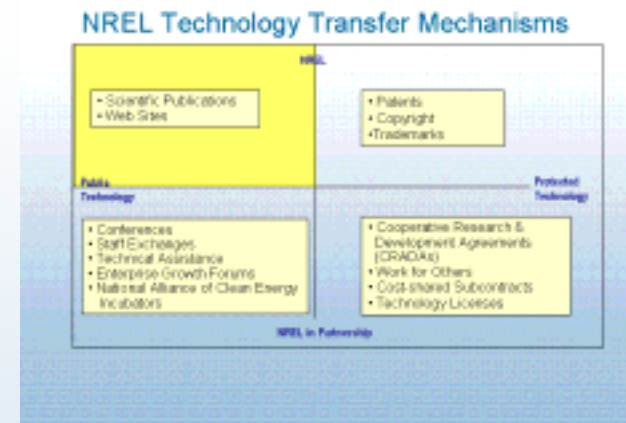
**Market
Successes**

- Excel at understanding industry needs
- Develop integrated partnerships for success

NREL Technology Transfer Mechanisms



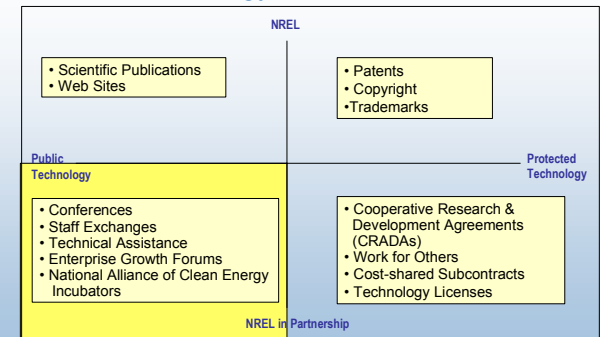
Public Technology NREL Led



- Making R&D information publicly available is the dominant mechanism for transferring NREL knowledge
- Broadly distributed through variety of mechanisms for others to build upon (reports, presentations, websites, seminars, training sessions)
- Publication clearance process controls dissemination of protected information

Public Technology Collaborative

NREL Technology Transfer Mechanisms



- NREL works with industry and stakeholders to facilitate use of knowledge and know how
 - Conferences for broad exchange of technical information and networking opportunities
 - Staff exchanges /sabbaticals between industry and NREL build expertise and opportunities for broader collaboration
 - Technical assistance from NREL helps industry resolve product problems
 - Industry Growth Forums coordinated by NREL provide business plan feedback and investment opportunities to entrepreneurial companies
 - National Alliance of Clean Energy Incubators led by NREL provides high value business services supporting startup company success

NREL Enterprise Development

Building Networks for Market Success



NREL Industry Growth Forums - Value-added Venture Capital access



NREL founded *National Alliance of Clean Energy Business Incubators* - Leading business development resources for entrepreneurs



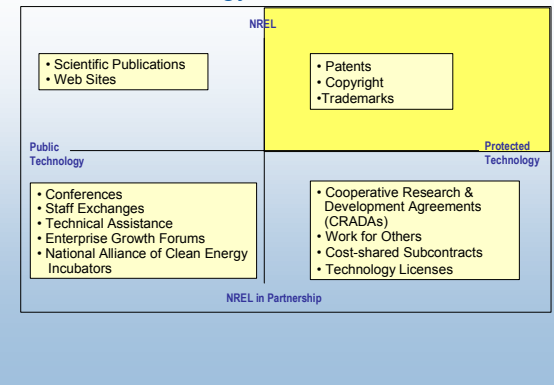
Clean Energy Investor Directory - Web based contact and profile information for investors



NREL Growth Link - Web directory of clean energy companies seeking financing, partnering, and growth opportunities.

Protected Technology NREL Led

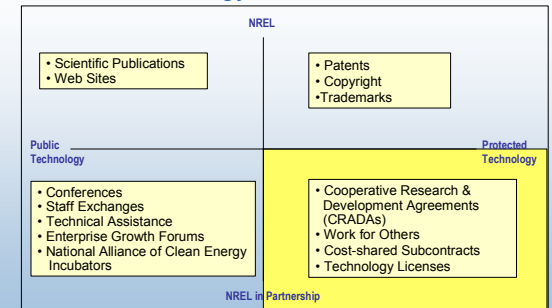
NREL Technology Transfer Mechanisms



- NREL protects intellectual property via patents, copyrights, trademarks
 - When it will add value to its eventual transfer to and use by private sector
 - When it is unique
- NREL cannot protect intellectual property by withholding information (trade secrets)

Protected Technology Collaborative

NREL Technology Transfer Mechanisms



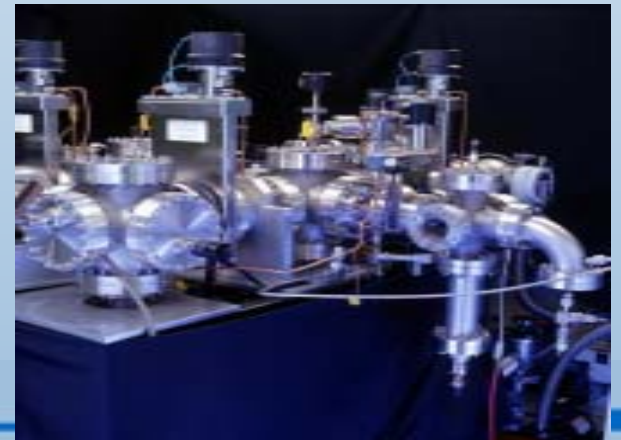
- NREL partners with industry to develop and use intellectual property
 - Cooperative Research and Development Agreements (CRADA)
 - Industry works with NREL to develop technology. CRADA has strong IP protection for industry.
 - Work for Others (WFO)
 - Industry pays NREL to conduct research for them. NREL must use unique capabilities, not compete with private sector.
 - Cost-shared subcontracts
 - NREL pays industry to conduct R&D in our mission areas. Industry provides cost-share and typically has rights to IP they develop.
 - Licensing NREL intellectual property for commercial use
 - License allows the use of NREL IP protected by patent, copyright, and/or trademark

Licensing Process

- Licenses
 - Are between MRI and Licensee
 - Subject to certain requirements in our DOE contract
 - Contain market-based compensation
- Start with due diligence
- Can include access to NREL resources and expertise to assist in the commercialization process

Value to NREL includes

- Successful commercialization of technology
- Future collaboration opportunities
- Recognition
- Royalty income reinvested at NREL



Our Vision

**Maximize Commercial Impacts
of NREL Technology**



**Best in Class
Technology Transfer**

**Industry's Partner
of Choice**